

ABSTRACT

This invention of the position/force control device intends to improve response performance in high frequency band and to ensure realization of a delicate work.

A position detector is provided each on a master 1 side and on a slave 3 side, respectively, and reaction force estimation observers 2 and 4 estimate reaction force undergone by the operation part of the master side and reaction force undergone by the object of the slave side on the basis of outputs of the position detectors. The position control part 5 generates acceleration signals a_{pm} , a_{ps} for controlling positions on the master side and on the slave side on the basis of the position signals outputted by the position detectors of the master side and of the slave side. The operation force control part 6 generates acceleration signals a_{fm} , a_{fs} for controlling forces applied to the master side and to the slave side based upon the outputs from reaction force estimation observers 2 and 4. The acceleration composition part 7 composes the two sets of acceleration signals a_{pm} , a_{ps} , and a_{fm} , a_{fs} , and outputs the driving signals for the master side and the slave side.